

CLAIMS

What is claimed is:

1. An automatic recognition system for use in a wireless local area network (LAN), which can automatically detect a new joining portable device and provide the same with a new recognition number in an existing wireless LAN, the system comprises:
an access point (AP) module having at least one access point, the access point can bridge the wireless and a wired LAN and act as a central controller for the wireless LAN, meanwhile the access point can coordinate transmission and reception from multiple wireless devices within a specific range;
a server having a plurality of initial service set identifier (SSID) connect with an existing portable device through the AP module, automatically complete all necessary setting of accessing the existing wireless LAN for a user and provide the user with all available services in the existing wireless LAN;
when the new joining portable device is actuated in the existing wireless LAN, a wireless Network Interface Card (NIC) coupling therewith send a built-in SSID of new joining portable device to the server for recognition;
when receiving the built-in SSID from the new joining portable device, the server will temporarily cut off a connection between the server and an existing portable device in the existing wireless LAN and select a IP address retained in the server to establish a new connection with the new joining portable device;
after establishing the new connection with the new joining portable device, the server use the initial SSID to re-connect with the existing portable device and send the same to the new joining

portable device;

after receiving the initial SSID, the new joining portable device temporarily terminate a built-in IP address thereof and replace the built-in IP address with an initial IP address from the server.

2. The system of claim 1 wherein the initial SSID from server includes a set of IP address, Wired Equivalent Privacy (WEP) key and subsystem identification.

3. An automatic recognition method for use in a wireless local area network (LAN), which can automatically detect a new joining portable device by a server connecting with an existing wireless LAN or wired LAN and provide the new joining portable device with a new identification number in the existing wireless LAN, the method comprises the steps of:

retaining a plurality of initial service set identifier (SSID) having specific system name for new adding by the server;

when the new joining portable device is actuated in the existing wireless LAN, sending out a built-in service set identifier (SSID) of the new joining portable device by a wireless Network Interface Card (NIC) coupling with the new joining portable device;

receiving the built-in SSID by an access point;

transmitting the built-in SSID from the access point to the server;

recognizing the built-in SSID by the server;

when the built-in SSID does not conform with the initial SSID of server, temporarily cutting off a connection between the server and an existing portable device in the existing wireless LAN;

using an IP address retained in the server to establish a new

connection with the new joining portable device through the access point;

temporarily terminating built-in IP address of the new joining portable device after receiving the IP address from the server;

replacing the built-in IP address the new joining portable device with the IP address from the server;

connecting the new joining portable device and the server by the access point in the existing wireless LAN;

re-connecting the existing portable device and the server in the existing wireless LAN;

4. The method of claim 3 wherein the new joining portable device can extend the wired LAN to wireless devices by utilizing the server and the access point after joining in the existing wireless LAN.

5. The method of claim 3 wherein the access point can bridge the wireless and wired LAN and act as a central controller for the wireless LAN.

6. The method of claim 3 wherein the access point can coordinate transmission and reception from multiple wireless devices within a specific range.

7. The method of claim 3 wherein the access point can connect with a plurality of peripherals through the wireless LAN by the server.

8. The method of claim 7 wherein the peripherals comprise a desktop computer, a printer and a Set top box.

9. The method of claim 3 wherein the initial service set identifier (SSID) of the server includes a set of IP address, Wired Equivalent Privacy (WEP) key and subsystem identification.

10. An automatic recognition method in accordance with Zero Configuration for use in a wireless local area network (LAN), which can automatically detect a new joining portable device by a server and provide the new joining portable device with a new identification number, the server connect with an access point module having at least one access point through an existing wireless LAN or wired LAN, the method comprises the steps of: retaining a plurality of SSID which have specific system name by the server;

when a new joining portable device is actuated in the existing wireless LAN in accordance with the Zero configuration, sending out a built-in SSID of the new joining portable device to the access point by a wireless Network Interface Card (NIC) coupling with the new joining portable device, then sending the built-in SSID from the access point to the server for recognition;

when the built-in SSID does not conform with initial SSID of the server, temporarily cutting off a connection between the server and an existing portable device in the existing wireless LAN, and using an IP address retained in the server to establish a new connection with the new joining portable device;

temporarily terminating built-in IP address of the new joining portable device after receiving the IP address from the server, replacing the built-in IP address with the IP address from the server and thereby connecting with the server through the access point, then re-connecting the existing portable device with the server.

11. The method of claim 10 wherein the server and the access point can extend the existing wired LAN to wireless devices after the new joining portable device connect with existing wireless LAN.
12. The method of claim 10 wherein the access point can bridge the wireless LAN and the wired LAN and act as a central controller for the wireless LAN.
13. The method of claim 10 wherein the access point can coordinate transmission and reception from multiple wireless devices within a specific range.
14. The method of claim 10 wherein the access point can connect with a plurality of peripherals through the wireless LAN by the server.
15. The method of claim 14 wherein the peripherals comprise a desktop computer, a printer and a Set top box.
16. The method of claim 10 wherein the initial service set identifier (SSID) of the server includes a set of IP address, Wired Equivalent Privacy (WEP) key and subsystem identification.